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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,711	02/01/2005	Andrea Bianco	36-1880	7611

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EXAMINER	
O CONNOR, BRIAN T	

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2419	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,711	BIANCO ET AL.	
	Examiner	Art Unit	
	Brian O'Connor	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: claim 6 recites "educing" on line 4, this is believed to be a misspelling of "reducing". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dell et al. (US 7,148,528; hereafter Dell) in view of Hill (Hill, WIPO Publication WO 01/67803A1, September 13, 2001; cited in IDS dated 08/29/2005).

With respect to claim 1, Dell discloses a method of allocating switch requests (Abstract) for routing data packets within a packet switch (Title) between a set of input ports and a set of output port (incoming ports for 606, 607 of Figure 6; outgoing ports for 609, 610 of Figure 6), the method comprising:

(a) generating switch request data for each input port indicative of the output ports to which data packets are to be transmitted (column 4, lines 5-10);

(b) processing the switch request data for each input port to generate request data for each of a plurality of input port-output port pairings (column 4, lines 22-27).

Dell does not disclose generating an allocation plan by reducing the number of queue requests relating to each port of one or both sets of ports by a common value, the common value being selected such that the total number of requests relating to each port of the set or sets of ports is no greater than a predetermined frame value.

Hill discloses generating an allocation plan by reducing the number of queue requests relating to each port of one or both sets of ports by a common value (page 9, lines 23-29; where the common value is $f/(\Sigma r_{(i,j)})$ is applied to each transfer request), the common value being selected such that the total number of requests relating to each port of the set or sets of ports is no greater than a predetermined frame value (See page 9, lines 18-22).

Hill teaches the benefit of reduced computing steps and faster execution speed (page 4, lines 8-11) by using a reduction in requests for each input port and each output port. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Hill with the method of Dell.

With respect to claim 2, Dell does not disclose discloses wherein the transformation of the request data is done by using the summations of the requests from each input port.

Hill discloses wherein the transformation of the request data is done by using the summations of the requests from each input port (See page 9, lines 1-3).

Hill teaches the benefit of reduced computing steps and faster execution speed (page 4, lines 8-11) by using a reduction in requests for each input port and each output

port. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Hill with the method of Dell.

With respect to claim 3, Dell does not disclose wherein the transformation of the request data is done by using the summations of the requests to each output port.

Hill discloses wherein the transformation of the request data is done by using the summations of the requests to each output port (See page 9, lines 1-3).

Hill teaches the benefit of reduced computing steps and faster execution speed (page 4, lines 8-11) by using a reduction in requests for each input port and each output port. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Hill with the method of Dell.

With respect to claim 4, Dell does not disclose wherein the reduction of the request data from each input port and to each output port is done, in such cases where the number or requests is greater than the maximum capacity of the corresponding input port or corresponding output port, the reduction being by a factor selected such that the number of requests from the corresponding input port and to the corresponding output port is no greater than the maximum capacity of the corresponding input port and the corresponding output port.

Hill further discloses wherein the reduction of the request data from each input port and to each output port is done, in such cases where the number or requests is greater than the maximum capacity of the corresponding input port or corresponding output port, the reduction being by a factor selected such that the number of requests from the corresponding input port and to the corresponding output port is no greater

than the maximum capacity of the corresponding input port and the corresponding output port (See page 4. lines 18-29).

Hill teaches the benefit of reduced computing steps and faster execution speed (page 4, lines 8-11) by using a reduction in requests for each input port and each output port. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Hill with the method of Dell.

With respect to claim 5, Dell does not disclose wherein the reduction of the request data from each input port and to each output port is done using a common factor selected such that the number of requests from each input port and to each output port is no greater than the maximum request capacity of each input port and each output port.

Hill discloses wherein the reduction of the request data from each input port and to each output port is done using a common factor selected such that the number of requests from each input port and to each output port is no greater than the maximum request capacity of each input port and each output port (See page 4, lines 21-27).

Hill teaches the benefit of reduced computing steps and faster execution speed (page 4, lines 8-11) by using a reduction in requests for each input port and each output port. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Hill with the method of Dell.

With respect to claim 6, Dell does not disclose wherein the reduction of the request data comprises (a) reducing the number of requests to each output port; and

(b) reducing the number of requests in the resulting reduced request data that exceeds the capacity of each input port.

Hill discloses wherein the reduction of the request data comprises (a) reducing the number of requests to each output port; and (b) reducing the number of requests in the resulting reduced request data that exceeds the capacity of each input port (See page 4, lines 24-29).

Hill teaches the benefit of reduced computing steps and faster execution speed (page 4, lines 8-11) by using a reduction in requests for each input port and each output port. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Hill with the method of Dell.

With respect to claim 7, Dell does not disclose wherein the transformation of the request data comprises (a) reducing the number of requests from each input port; and (b) reducing the number of requests in the resulting reduced request data that exceeds the capacity of each output port.

Hill discloses wherein the transformation of the request data comprises (a) reducing the number of requests from each input port; and (b) reducing the number of requests in the resulting reduced request data that exceeds the capacity of each output port (See page 4, lines 24-29).

Hill teaches the benefit of reduced computing steps and faster execution speed (page 4, lines 8-11) by using a reduction in requests for each input port and each output port. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Hill with the method of Dell.

With respect to claim 8, Dell does not disclose wherein the process is iterative, and is repeated one or more times in respect of input ports and output ports for which capacity remains available after the previous iteration is complete.

Hill discloses wherein the process is iterative, and is repeated one or more times in respect of input ports and output ports for which capacity remains available after the previous iteration is complete (See page 5, lines 15-19).

Hill teaches the benefit of reduced computing steps and faster execution speed (page 4, lines 8-11) by using a reduction in requests for each input port and each output port. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Hill with the method of Dell.

With respect to claim 9, Dell does not disclose wherein the input port-output port routing is allocated according to the method of claim 1 and the packets are switched on the basis of the allocated routing.

Hill discloses wherein the input port-output port routing is allocated according to the method of claim 1 and the packets are switched on the basis of the allocated routing (See page 4, lines 30-32 and page 5 lines 3-7).

Hill teaches the benefit of reduced computing steps and faster execution speed (page 4, lines 8-11) by using a reduction in requests for each input port and each output port. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Hill with the method of Dell.

With respect to claim 10, Dell further discloses a packet switch (102 of Figure 1) in which the input port-output port routing (104 of Figure 1) is allocated in accordance with the method of claim 1.

With respect to claim 11, Dell further discloses a packet switch according to claim 10, wherein packets are switched from an input port to a specified output port in accordance with the allocated routing (incoming ports for 606, 607 of Figure 6; outgoing ports for 609, 610 of Figure 6).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian O'Connor whose telephone number is (571)270-1081. The examiner can normally be reached on M-F, 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian T. O'Connor
July 2, 2009
Patent Examiner
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Supervisory Patent Examiner, Art Unit 2419/D. T. T./

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